

City of Stamford Board of Finance / Board of Representatives Pension and OPEB Discussion – April 12, 2023

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Agenda

- High-level review of the results of the July 1, 2022 valuations
- Historical funded ratios and contribution levels
- Long-range forecast of the City's contributions
- Review of historical investment returns by plan



Changes reflected in the July 1, 2022 valuations

- Significant asset losses in FY 2021-22; largely blunted by asset smoothing mechanism
- Experience studies for the CERF and Custodians pension plans
 - Detailed analysis of actual past plan experience
 - <u>No</u> change recommended to the interest rate assumption (6.70%)
 - Adjustments made to many other assumptions, including retirement, turnover, salary growth

→ Reduced CERF & Custodians pension liability by about \$50m; slight impact on OPEB liability

- Switch from Projected Unit Credit to Entry Age Normal cost method
- Revise funding policy to pay full Net Normal Cost when a plan is modestly overfunded (100-125%)

→ Generally increased liability and reduced Normal Cost; small net impact on contributions

- City OPEB valuation reflects continued shift of post-65 coverage to CT State Partnership Plan (SPP) and continued downward trend in premiums
 - Most groups moved 2020-2022; some Police retirees and all Fire retirees remain on other plans
 - Current annual premium for single coverage: SPP \$1,900 (down from \$3,300); other plans \$9,500-\$12,800
 - → Reduced OPEB liability by about \$100m



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Results of July 1, 2022 pension valuations

| | CERF City | CERF Board of Education | CERF WPCA | CERF Total | Custodians | Fire | Police |
|---|---------------|----------------------------|--------------|---------------|--------------|---------------|---------------|
| Accrued liability | \$240,941,500 | \$28,677,072 | \$13,906,296 | \$283,524,868 | \$87,133,059 | \$246,584,928 | \$322,571,385 |
| Actuarial value of assets | 227,447,577 | 27,123,168 | 14,219,625 | 268,790,370 | 94,177,157 | 185,125,615 | 245,972,243 |
| Unfunded accrued liability | 13,493,923 | 1,553,904 | (313,329) | 14,734,498 | (7,044,098) | 61,459,313 | 76,599,142 |
| Past service cost | 1,362,334 | 156,881 | (31,633) | 1,487,582 | 0 | 8,223,888 | 7,733,380 |
| Total normal cost | 3,197,358 | 564,379 | 190,432 | 3,952,169 | 2,140,814 | 5,257,258 | 6,614,267 |
| Expected employee contributions | 1,649,039 | 281,956 | 102,977 | 2,033,972 | 1,267,849 | 1,410,335 | 1,579,999 |
| Administrative expenses | 89,971 | 15,881 | 5,359 | 111,211 | 60,000 | 117,000 | 199,000 |
| Net normal cost | 1,638,290 | 298,304 | 92,814 | 2,029,408 | 932,965 | 3,963,923 | 5,233,268 |
| Timing Adjustment | 201,042 | 30,497 | 4,099 | 235,638 | 62,509 | 816,583 | 868,765 |
| Actuarially Determined Contribution (ADC) for FYE 2024 | 3,201,666 | 485,682 | 65,280 | 3,752,628 | 995,474 | 13,004,394 | 13,835,413 |

ADC, All Plans Combined

31,587,909

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Results of July 1, 2022 OPEB valuations

| | | City OPEB Plan | | | | | | BOE OPEB Plan | | |
|--|--------------|----------------|-------------|-------------|---------------|---------------|--------------|---------------|------------|--|
| | CERF City | CERF BOE | CERF WPCA | Custodians | Fire | Police | Teachers | Admin. | Ed Assts. | |
| Accrued Liability | \$45,452,202 | \$5,990,652 | \$2,314,442 | \$5,979,570 | \$114,754,512 | \$117,497,239 | \$22,595,233 | \$1,233,387 | \$607,019 | |
| Actuarial Value of Assets | 34,186,440 | 4,505,811 | 3,659,939 | 4,497,477 | 86,311,510 | 88,374,424 | 21,268,232 | 1,160,952 | 571,369 | |
| Unfunded Accrued Liability | 11,265,762 | 1,484,841 | (1,345,497) | 1,482,093 | 28,443,002 | 29,122,815 | 1,327,001 | 72,435 | 35,650 | |
| Funded Ratio | 75.2% | 75.2% | 158.1% | 75.2% | 75.2% | 75.2% | 94.1% | 94.1% | 94.1% | |
| Amortization Period | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | |
| Amortization Growth Rate | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | |
| Past Service Cost | 835,674 | 110,143 | (99,807) | 109,939 | 2,109,850 | 2,160,278 | 98,435 | 5,373 | 2,644 | |
| Total Normal Cost | 1,058,539 | 192,939 | 63,524 | 145,458 | 2,544,242 | 2,404,635 | 759,720 | 41,866 | 26,783 | |
| Expected Employee Contributions | 0 | 0 | 0 | 0 | 0 | 212,448 | 0 | 0 | 0 | |
| Net Normal Cost | 1,058,539 | 192,939 | 63,524 | 145,458 | 2,544,242 | 2,192,187 | 759,720 | 41,866 | 26,783 | |
| Timing Adjustment | 126,913 | 20,306 | (2,431) | 17,112 | 311,824 | 291,615 | 57,496 | 3,165 | 1,972 | |
| Actuarially Determined Contribution (ADC)* for FYE 2024 | 2,021,126 | 323,388 | 0 | 272,509 | 4,965,916 | 4,644,080 | 915,651 | 50,404 | 31,399 | |
| ADC, Total for Each Plan | | | | | | 12,227,019 | | | 997,454 | |
| ADC, All Plans Combined | | | | | | | | | 13,224,473 | |

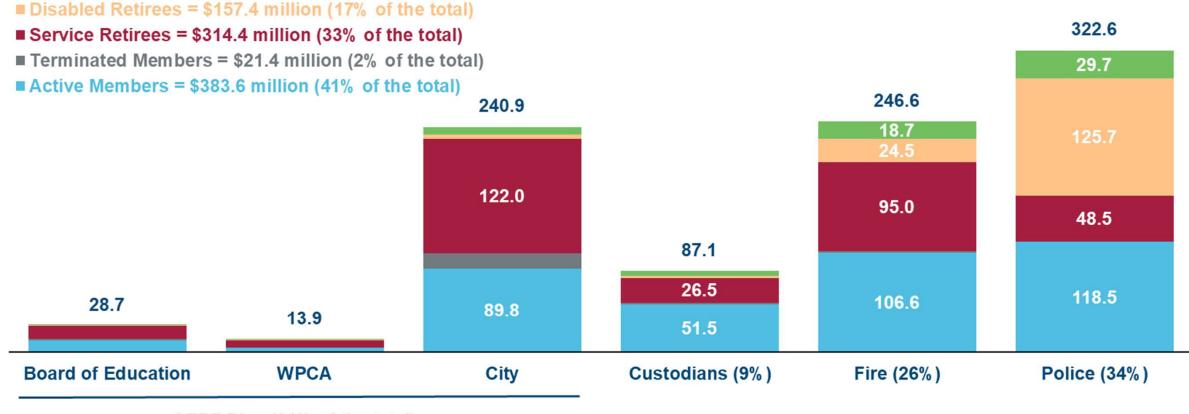
*The ADC for each group is equal to the sum of the Past Service Cost, Net Normal Cost and Timing Adjustment, but not less than zero. The total ADC for the plan is equal to the sum of the ADC's for each group.



Liability for pension benefits

Beneficiaries = \$63.0 million (7% of the total)

Accrued Liability as of July 1, 2022 = \$939.8 million in total



CERF Plan (31% of the total)



Liability for OPEB benefits

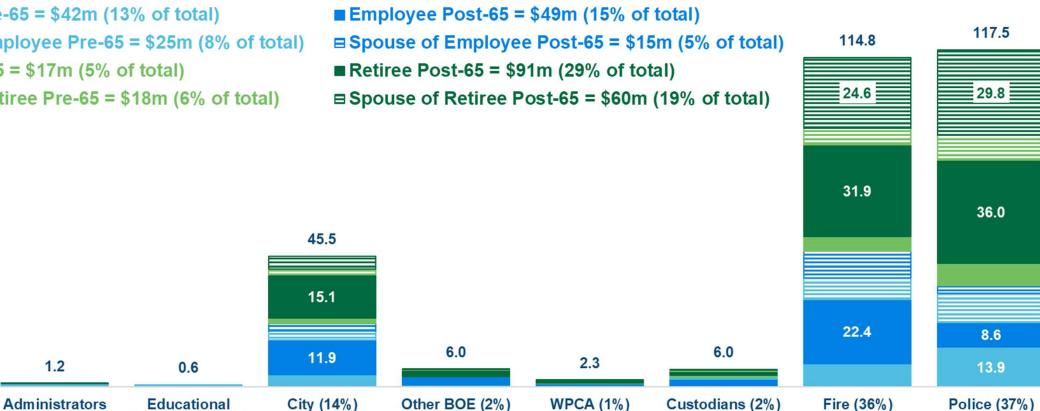
Accrued Liability as of July 1, 2022 = \$316.4 million in total

Assistants (0.2%)

■ Employee Pre-65 = \$42m (13% of total) ■ Spouse of Employee Pre-65 = \$25m (8% of total) ■ Retiree Pre-65 = \$17m (5% of total) ■ Spouse of Retiree Pre-65 = \$18m (6% of total)

1.2

(0.4%)





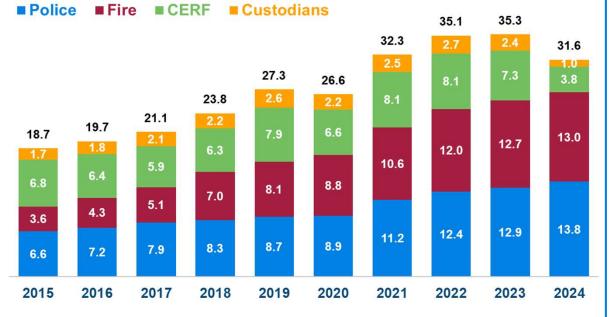
22.6

13.1

Teachers (7%)

Historical pension metrics

Actuarially Determined Contributions



Funded Ratios Police — Fire ··· CERF — Custodians 108.1% 94.8% 92.1% 90.9% 84.6% 81.1% 76.3% 79.0% 73.3% 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022

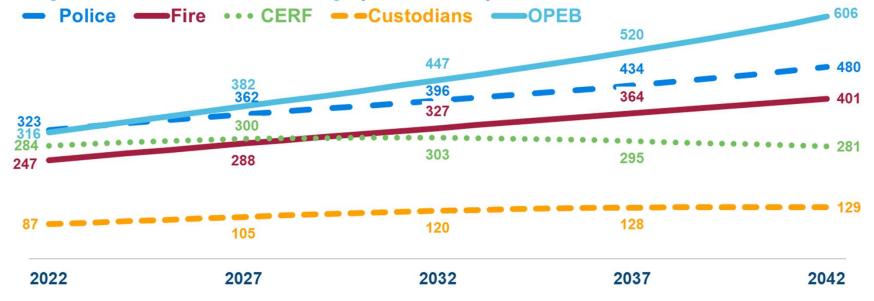
Contribution Growth Rate FY 2015-2024

| Police | 208% |
|------------|------|
| Fire | 364% |
| CERF | -45% |
| Custodians | -40% |
| Combined | 169% |



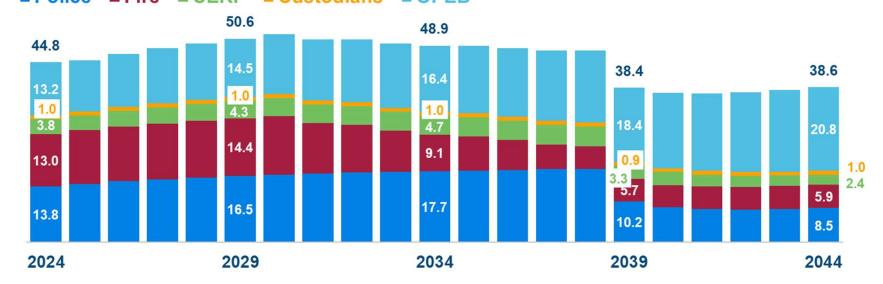
Projected Accrued Liability (\$ millions)

Long range forecast based on July 1, 2022 valuations



Projected City Contributions (\$ millions)

Police Fire CERF Custodians OPEB





Long range contribution forecast

These forecasts are based on the results of the July 1, 2022 actuarial valuations and assume that the City will pay the Actuarially Determined Contribution each year, the assets will return the assumed interest rate on a market value basis each year, and there are no future changes in the actuarial methods or assumptions or in the plan provisions. Actual results at each point in time will yield different values, reflecting the actual experience of the plan membership and assets.

| | | | | Pension | | | | | | |
|-------------------|----------------|-------------|------------|--------------|--------------|-------------------|-------------|--------------|------------------|-----------------------|
| Valuation Date | Fiscal Year | CERF | Custodians | Fire | Police | Plans Combined | BOE OPEB | City OPEB | OPEB Combined | All Plans Combined |
| 7/1/2022 | 2023-24 | \$3,752,628 | \$995,474 | \$13,004,394 | \$13,835,413 | \$31,587,909 | \$997,454 | \$12,227,000 | \$13,224,454 | \$44,812,363 |
| 7/1/2023 | 2024-25 | 3,653,000 | 1,020,000 | 13,360,000 | 14,483,000 | 32,516,000 | 1,059,000 | 11,710,000 | 12,769,000 | 45,285,000 |
| 7/1/2024 | 2025-26 | 3,852,000 | 1,028,000 | 13,675,000 | 15,119,000 | 33,674,000 | 1,103,000 | 12,100,000 | 13,203,000 | 46,877,000 |
| 7/1/2025 | 2026-27 | 4,059,000 | 1,025,000 | 13,913,000 | 15,616,000 | 34,613,000 | 1,145,000 | 12,503,000 | 13,648,000 | 48,261,000 |
| 7/1/2026 | 2027-28 | 4,222,000 | 1,025,000 | 14,120,000 | 16,053,000 | 35,420,000 | 1,185,000 | 12,890,000 | 14,075,000 | 49,495,000 |
| 7/1/2027 | 2028-29 | 4,347,000 | 1,015,000 | 14,368,000 | 16,452,000 | 36,182,000 | 1,226,000 | 13,225,000 | 14,451,000 | 50,633,000 |
| 7/1/2028 | 2029-30 | 4,462,000 | 1,005,000 | 14,544,000 | 16,813,000 | 36,824,000 | 1,266,000 | 13,595,000 | 14,861,000 | 51,685,000 |
| 7/1/2029 | 2030-31 | 4,541,000 | 992,000 | 12,617,000 | 17,063,000 | 35,213,000 | 1,308,000 | 13,930,000 | 15,238,000 | 50,451,000 |
| 7/1/2030 | 2031-32 | 4,616,000 | 974,000 | 11,907,000 | 17,306,000 | 34,803,000 | 1,350,000 | 14,284,000 | 15,634,000 | 50,437,000 |
| 7/1/2031 | 2032-33 | 4,685,000 | 977,000 | 10,281,000 | 17,513,000 | 33,456,000 | 1,393,000 | 14,614,000 | 16,007,000 | 49,463,000 |
| 7/1/2032 | 2033-34 | 4,745,000 | 967,000 | 9,096,000 | 17,712,000 | 32,520,000 | 1,438,000 | 14,965,000 | 16,403,000 | 48,923,000 |
| 7/1/2033 | 2034-35 | 4,792,000 | 974,000 | 8,477,000 | 17,856,000 | 32,099,000 | 1,484,000 | 15,286,000 | 16,770,000 | 48,869,000 |
| 7/1/2034 | 2035-36 | 4,815,000 | 976,000 | 7,375,000 | 18,007,000 | 31,173,000 | 1,532,000 | 15,625,000 | 17,157,000 | 48,330,000 |
| 7/1/2035 | 2036-37 | 4,834,000 | 962,000 | 6,182,000 | 18,167,000 | 30,145,000 | 1,581,000 | 15,963,000 | 17,544,000 | 47,689,000 |
| 7/1/2036 | 2037-38 | 4,843,000 | 948,000 | 5,647,000 | 18,276,000 | 29,714,000 | 1,633,000 | 16,321,000 | 17,954,000 | 47,668,000 |
| 7/1/2037 | 2038-39 | 3,265,000 | 927,000 | 5,659,000 | 10,176,000 | 20,027,000 | 1,686,000 | 16,694,000 | 18,380,000 | 38,407,000 |
| 7/1/2038 | 2039-40 | 3,200,000 | 909,000 | 5,476,000 | 8,760,000 | 18,345,000 | 1,742,000 | 17,075,000 | 18,817,000 | 37,162,000 |
| 7/1/2039 | 2040-41 | 2,969,000 | 930,000 | 5,626,000 | 8,249,000 | 17,774,000 | 1,800,000 | 17,490,000 | 19,290,000 | 37,064,000 |
| 7/1/2040 | 2041-42 | 2,739,000 | 930,000 | 5,701,000 | 8,076,000 | 17,446,000 | 1,861,000 | 17,932,000 | 19,793,000 | 37,239,000 |
| 7/1/2041 | 2042-43 | 2,536,000 | 951,000 | 5,808,000 | 8,278,000 | 17,573,000 | 1,924,000 | 18,384,000 | 20,308,000 | 37,881,000 |



Historical investment performance

| Fiscal Year June 30 Police Fire CERF Custodians OPEB | Ending 40% | 2014 15.13% 12.67% 16.65% 16.34% | 2015 4.38% -0.15% 1.44% 0.73% | 2016 -2.15% -3.38% -4.38% -3.37% | 2017 10.81% 14.22% 14.62% 14.27% 13.43% | 2018 9.18% 8.60% 9.77% 8.89% 8.51% | 2019 1.92% 6.28% 4.50% 5.18% 4.84% | 2020 -3.18% -1.68% 6.29% 6.25% 6.55% | 2021 18.70% 30.91% 32.89% 32.39% 31.05% | 2022 -4.22% -9.31% -12.92% -17.12% -15.63% | Compound Annual Return 5.33% 5.88% 6.94% 6.26% 7.23% | Deviation of Annual Returns 8.30% 12.02% 13.18% 13.79% 15.04% |
|--|---------------|--|---|--|--|---|---|---|--|---|---|--|
| | 30% | | | | | | | | | | | |
| | 20% | | | | | | | 1 | | | | |
| | 10% | | | | 1 | | | \square | | | | |
| | 0% | | A COMPANY | | | | | 1 | | | _ | |
| | -10% | | | | | | | | | | | |
| | -20% | | | | | | | | | | | |

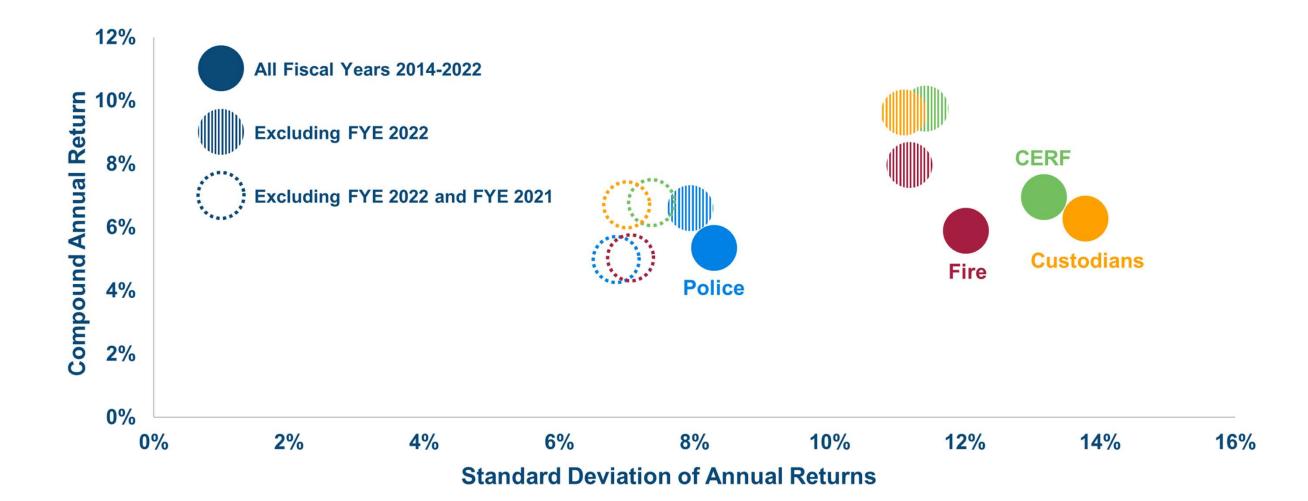
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Standard

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Investment risks vs. rewards





Market gains / losses relative to investment assumption

CERF

| FYE | Actual Investment Return | Expected Return | Market (Gain) / Loss |
|-----------------|--------------------------------|--------------------|-------------------------|
| 6/30/2015 | \$8,404,119 | \$14,664,202 | \$6,260,083 |
| 6/30/2016 | (4,227,286) | 14,747,812 | 18,975,098 |
| 6/30/2017 | 20,375,655 | 13,843,122 | (6,532,533) |
| 6/30/2018 | 18,688,574 | 14,400,082 | (4,288,492) |
| 6/30/2019 | 4,166,104 | 15,364,266 | 11,198,162 |
| 6/30/2020 | (6,839,005) | 15,003,262 | 21,842,267 |
| 6/30/2021 | 37,414,071 | 14,000,233 | (23,413,838) |
| 6/30/2022 | (10,002,476) | 16,091,946 | 26,094,422 |
| All 8 Years | 67,979,756 | 118,114,925 | 50,135,169 |
| Market Value | June 30, 2022 | | 219,197,323 |
| All 8 Years ÷ M | arket Value | | 23% |

| FYE | Actual Investment Return | Expected Return | Market (Gain) / Loss | | | | |
|-----------------|--------------------------------|--------------------|-------------------------|--|--|--|--|
| 6/30/2015 | \$3,015,465 | \$16,004,777 | \$12,989,312 | | | | |
| 6/30/2016 | (9,080,116) | 15,494,931 | 24,575,047 | | | | |
| 6/30/2017 | 27,749,374 | 14,233,817 | (13,515,557) | | | | |
| 6/30/2018 | 20,438,341 | 15,492,007 | (4,946,334) | | | | |
| 6/30/2019 | 10,047,409 | 15,821,574 | 5,774,165 | | | | |
| 6/30/2020 | 14,144,606 | 15,794,748 | 1,650,142 | | | | |
| 6/30/2021 | 75,788,253 | 16,166,257 | (59,621,996) | | | | |
| 6/30/2022 | (38,930,346) | 20,701,293 | 59,631,639 | | | | |
| All 8 Years | 103,172,986 | 129,709,404 | 26,536,418 | | | | |
| Market Value | Market Value June 30, 2022 | | | | | | |
| All 8 Years ÷ M | larket Value | | 10% | | | | |
| | | | | | | | |

| | Actual | | | Custodians | Actual | | |
|-----------------|---------------|-------------|---------------|------------|---------------------|-------------|---------------|
| | Investment | Expected | Market | | Investment | Expected | Market |
| FYE | Return | Return | (Gain) / Loss | FYE | Return | Return | (Gain) / Loss |
| 6/30/2015 | (\$191,595) | \$9,878,553 | \$10,070,148 | 6/30/20 | \$415,987 | \$4,383,627 | \$3,967,640 |
| 6/30/2016 | (4,243,849) | 8,919,322 | 13,163,171 | 6/30/20 | (1,949,305) | 4,347,578 | 6,296,883 |
| 6/30/2017 | 16,677,565 | 8,332,156 | (8,345,409) | 6/30/20 | 8,023,789 | 4,144,351 | (3,879,438) |
| 6/30/2018 | 11,320,351 | 9,319,469 | (2,000,882) | 6/30/20 | 5,730,009 | 4,761,698 | (968,311) |
| 6/30/2019 | 8,901,866 | 9,932,371 | 1,030,506 | 6/30/20 | 3,665,503 | 5,009,543 | 1,344,040 |
| 6/30/2020 | (2,513,388) | 10,323,635 | 12,837,023 | 6/30/20 | 4,644,714 | 5,216,437 | 571,723 |
| 6/30/2021 | 44,438,027 | 10,019,964 | (34,418,063) | 6/30/20 | 25,425,969 | 5,511,523 | (19,914,446) |
| 6/30/2022 | (17,902,068) | 12,987,408 | 30,889,476 | 6/30/20 | (17,978,860) | 7,214,381 | 25,193,241 |
| All 8 Years | 56,486,909 | 79,712,878 | 23,225,970 | All 8 Yea | ars 27,977,806 | 40,589,138 | 12,611,332 |
| Market Value | June 30, 2022 | | 169,194,389 | Market | /alue June 30, 2022 | | 85,880,603 |
| All 8 Years ÷ M | larket Value | | 14% | All 8 Yea | ars ÷ Market Value | | 15% |



Fire

Police

Questions?